

CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 51 and 52 (previously cancelled).

Claims 5-27, 31, 32, 39, 50 and 54 (cancelled).

33. (currently amended) A method to identify an agent that increases or decreases the amount of double minute chromosomes or extrachromosomal DNA in a cell, comprising contacting the cell with the agent, wherein the cell expresses a labeled histone or analog thereof ~~protein~~ that associates with double minute chromosomes or extrachromosomal DNA to form a labeled complex; and comparing the amount of the labeled complex contained in the cell contacted with the agent with the amount of labeled complex contained in a cell that was not contacted with the agent.

34. (previously presented) The method of claim 33, wherein the cell is alive when the amount of labeled complex is compared.

35. (previously presented) The method of claim 33, wherein the cell is dead when the amount of labeled complex is compared.

36. (currently amended) The method of claim 33, wherein the labeled histone or analog thereof ~~protein~~ comprises a fluorescently labeled protein.

37. (currently amended) The method of claim 33, wherein the labeled histone or analog thereof ~~protein~~ is fused to a fluorescent protein ~~fused to a protein that associates with DNA.~~

38. (previously presented) The method of claim 37, wherein the fluorescent protein is Aequorea victoria green fluorescent protein, Aequorea victoria cayenne fluorescent protein or Aequorea victoria yellow fluorescent protein.

39. (cancelled) The method of claim 33, wherein the labeled protein that associates with DNA is a histone or an analog thereof.

40. (currently amended) The method of claim 33 ~~39~~, wherein the histone is H3, H4, H2A or H2B.

41. (currently amended) The method of claim 33 ~~39~~, wherein the histone is H2B.

42. (previously presented) The method of claim 33, wherein the cell contains an oncogene.

43. (previously presented) The method of claim 33, wherein the cell lacks at least one functional tumor suppressor gene.

44. (previously presented) The method of claim 33, wherein the cell expresses a non-functional p53 protein.

45. (previously presented) The method of claim 33, wherein the cell is a cancer cell.

46. (previously presented) The method of claim 33, wherein the cell is a human cell.

47. (previously presented) The method of claim 33, wherein the cell is a neoplastic cell.

48. (previously presented) The method of claim 33, wherein the labeled complex is compared with fluorescence microscopy or flow cytometry.

49. (previously presented) The method of claim 33, further comprising determining if the cell has undergone reversion of a neoplastic phenotype, differentiation or apoptosis.

50. (cancelled) The method of claim 33, wherein the labeled protein is a non-centromere binding protein or a lac repressor.

53. (previously presented) The method of claim 33, wherein the comparing is done *in vitro*, *in vivo* or *ex vivo*.

54. (cancelled) The method of claim 50, wherein the comparing is done *in vitro*, *in vivo* or *ex vivo*.